

## **POLICY 5.2.5      TREAT –TARGETED RESIDENTIAL ENERGY ANALYSIS TOOL**

### **A. Policy**

TREAT (Targeted Residential Energy Analysis Tools) has been adopted as the authorized energy audit tool to be used in the weatherization program. It is required for analysis of any type of measure, or dwelling unit, not specifically covered by a DOE approved priority list for the Washington State Low-Income Weatherization Program.

Measures not included in the Priority List of Weatherization Measures, or specifically permitted by policy, will require use of TREAT to justify a Wx project and the investment by the weatherization program. Failure to use TREAT to justify a Wx project that includes measures not included in the Priority List of Weatherization Measures, or by other policy, will result in disallowed costs.

1. **Costs:** Local agencies shall calculate and maintain their Wx costs for materials, labor (including any applicable prevailing wage rates), and fuels annually, for use in the TREAT auditing process.
  - a. Weatherization Measures (WxM) include ancillary items and their costs. See [Exhibit 5.1B, WxM Ancillary Items, WRR, and H&S](#)
2. Local agencies are responsible for ensuring that all staff performing computerized energy audits acquire and maintain proficiency using TREAT.
3. TREAT will be used to develop a scope of work.

**Exception:** Use of the Priority List. See [Policy 5.2.4, Priority List](#)

4. The Local agency shall include and improve the energy efficiency for the following Wx Measures in their TREAT model(s):
  - a. Air Sealing
  - b. Ceiling Insulation
  - c. Wall Insulation
  - d. Floor Insulation
  - e. Windows and Doors
  - f. Heating and Cooling Systems
  - g. Duct Sealing
  - h. Duct Insulation
  - i. Water Heater
  - j. Water Pipe

- k. Refrigerator
- l. Lighting
- m. Showerheads
- n. Faucet aerators

**Exception:** Clients may decline a Wx Measure. The Local Agency shall re-run their improvements TREAT model without the Wx Measure declined. Client refusal must be documented in the client file.

5. The most cost-effective measures as determined by TREAT will be implemented in descending order of cost effectiveness subject to funding availability.
6. **Savings to Investment Ratio (SIR):**
  - a. The Local Agency shall install those individual conservation measures (Weatherization Measures (WxM)) that have a SIR of 1.0 or greater.

**Exception:** A measure with an SIR of 1 or greater can be deferred if the Local Agency does not have adequate funding to install the measure.
  - b. When using TREAT, on the “Package Wizard” screen, the individual Wx Measures and the total package of measures must each have an SIR of 1.0 or greater.
  - c. The cost of Weatherization Related-Repairs (incidental repairs) must be included in the cost of the package of measures installed in a dwelling.
  - d. Health and Safety Measures are NOT included.
7. Leveraged funds may be used to reduce weatherization fund source investments in order to bring the SIR to 1.0 or greater.
8. **Weatherization-Related Repairs (WRR):** WRR do not require an individual  $SIR \geq 1$ . However, WRR costs must be cost-effective and justified. Account for WRR costs by describing them as “**visual inspections**” in TREAT. Then add their costs as “**improvements**” into a TREAT package. Such improvements will generate individual SIRs in TREAT that are “N/C” (not calculated) or 0.
  - a. On the “Package Wizard” screen:
    - (1) Each WxM within the TREAT package must have an individual  $SIR > 1$ , and
    - (2) The TREAT package (including the WRR costs) must have a package  $SIR > 1$ .

**Exception:** An alternate method for accounting for WRR cost is to simply add the WRR cost to the related WxM. On the “**Package Wizard**” screen, if the individual  $SIR \geq 1$  and the package  $SIR \geq 1$ , then the project qualifies for implementation economically.

9. **Computerized Energy Audit set-up maintenance:** The Local Agency is required to maintain and use the most current version (including updates) of TREAT software

Requirements for key project parameters are as follows:

- a. **Fuel costs:** Use current costs for applicable fuel types used at the project site based on local survey. Update current fuel costs annually, at a minimum.
- b. **Installed measure costs:** The Local Agency shall calculate installed measure costs incorporating any applicable prevailing wage rates. For use in TREAT, Installed Measure Costs are verifiable material and labor costs to install Wx Measures and WRR Measures.
- c. **Daily and long term weather:** Use nearest available weather station(s). Other stations may be substituted based on justification of heating degree days.
- d. **Air Infiltration:** Will be based on blower door diagnostics.

**Exception:** Multi-family dwellings five units and greater do not require blower door testing. If blower door testing is not done, the TREAT default of 0.6 ACH or justified alternative will be used.

- e. **Thermostat Setting:** Use actual verified set points and occupancy data. If actual data cannot be verified, standard occupied temperature of 70 degrees F and unoccupied temperature of 60 degrees F (includes sleep) shall be used. Standard number of occupied hours is 16 per day.
- f. **Number of occupants:** Use actual verified occupancy data. If actual data cannot be verified, standard occupancy of 1.5 people per bedroom shall be used. For dwellings less than five units, standard occupancy may be calculated based on number of bedrooms plus one occupant.
- g. **Surfaces and spaces:** Use actual energy audit assessment to determine structural characteristics and thermal boundaries. TREAT allows for combining surfaces or spaces based on significant common characteristics.
- h. **Windows and doors:** Use actual project assessment to determine size, type, and location.
- i. **Lifespan:** Use the following defaults:

**Measure**

**Measure Lives**

Mobile Homes      Site Built

**Air Sealing**

25

45

**Ceiling Insulation**

25

45

**Floor Insulation**

25

25

<b>Wall Insulation</b>	25	45
<b>Rigid Insulation</b>	25	45
<i>Steel Doors</i>	15	15
<i>Mobile Home Doors</i>	15	N/A
<b>Rim Joist Insulation</b>	N/A	45
<i>Windows</i>	20	20
<i>Storm Windows</i>	15	15
<b>Lighting</b>	10	10
<b>Water Heater</b>	15	15
Duct Sealing	15	20
<i>Duct Insulation</i>	15	20
<b>Refrigerators</b>	15	15
<i>Furnace Replacement</i>	15	20
<b>Ductless Heat Pump</b>	20	20
<b>Ducted Heat Pump</b>	20	20
<i>Shower Heads</i>	15	15

- j. **Fans:** Include all building mechanical airflow.
- k. **Base-load:** Use actual verified data from the energy audit assessment, TREAT defaults, or a justified combination.
- l. **Billing Analysis and True Up:** Import or enter the most recent energy bill data (minimum 12 months) to calibrate (true up) the TREAT model.

**Exception:** For single family, small multi-family (four units or less), and mobile home dwellings the billing analysis TREAT true up is optional. It is strongly recommended, but not required.

Justification for any variance from these parameters shall be clearly documented in the project notes.

- 10. Local agencies shall document each TREAT Wx project in the client file with the TREAT computer file (\*.tpg).
- 11. Local agencies shall install WxM in the order dictated by workflow.